



UMass Chan
MEDICAL SCHOOL

2023 Summer Undergraduate Research Program Handbook



2022 Summer Undergraduate Research Fellows



2023 Summer Undergraduate Research Program



Program Office S3-104

Brian Lewis, Ph.D. Co-P.I.
Pranoti Mandrekar, Ph.D. Co-P.I.
summer.research@umassmed.edu

Linhelle P. Charles, Administrative Coordinator
linhelle.charles@umassmed.edu
Office 508-856-2444
Cell 508-797-7919

Table of Contents

Program Schedule	1 - 4
Program Description	4
Program Dress Code	4
Travel Guidelines	4
Healthcare and Emergency Contact	5
Guidelines for Disability Documentation	5
UMASS Email and Internet	5
Packages and Mail	5
Housing Information	6
WSU Identification Card	6
Personal Items to Bring	6
WSU Maintenance Reporting	6
Facilities	7
Laundry	7
Internet	7
Housing Security and Guidelines	7
Expectations	8
Guests	8
Housing Checkout	8
Social Events	8
Movie/Potluck Nights	8
Bus Transportation	8
Parking at WSU and UMASS	8
First Day of the Program	9
Required Scheduled Events	9
Weekend Reporting Guidelines	9
Incident Reports	9
Poster Session	9
Closing Ceremony and Luncheon	9
Program Evaluations and Surveys	9
Items Prohibited in Residence Halls	10
Worcester State University Area Information	11

Supermarkets	11
Pharmacies	11
Transportation	11
Restaurants	12
Take Out / Carry Out	13
Banks	13
Churches	14
Movie Theatres	15
Shopping	16
UMASS Campus Map	17
UMASS Plantation Street Parking Garage	18
UMASS Area Map	19
WSU Campus Map	20
WSU Area Map	21
Life in Worcester	22
UMass Chan Article	26



**University of Massachusetts Medical School
2023 Summer Undergraduate Research Program
May 28, 2023– August 4, 2023**

Week	Day	Date	Time	Event	Room
1	Sunday	May 28	12:00pm-4:00pm	Housing check in Wasylean Hall	Worcester State University (WSU)
	Monday	May 29		Memorial Day Holiday	
	Tuesday	May 30	8:40am 9:00am 9:15am 11:30am 12:00pm 1:30pm 7:00pm	Breakfast Welcome Orientation - Brian Lewis PhD, Pranoti Mandrekar, PhD, Dean Mary Ellen Lane, PhD Erin J. Almstrom, LMHC, CEAP, Office of Well Being Pickup ID Badges/Parking Tags Questions/Tour Lunch "Get Acquainted Lunch" Meet preceptors and go to lab WSU Orientation/SEP & SURP	Amphitheater III S6-102
	Wednesday	May 31	9:00am-10:00am 10:00am-12:00pm	RCR Chemical Safety Presentation: Stephen Tutto Human Subject – IRB: Heather Tessier & Eric Stratton	MPR Room in Sheehan Hall Lazare Auditorium S1-607 Lazare Auditorium S1-607
	Thursday	June 1	9:00am-10:00am 10:00am-11:00am 11:00am-12:00pm	Notebook Organization: Ochoa, Humberto IACUC Presentation: Matt Gounis Responsible Conduct of Research: Pranoti Mandrekar	Room S2-351 & Room S2-352 Room S2-351 & Room S2-352 Room S2-351 & Room S2-352
	Friday	June 2	9:00am-10:00am 10:00am-12:00pm	Library and Computer Resources: Vivian Okyere RCR Training: Brian Lewis, PhD	Room S2-351 & Room S2-352 Room S2-351 & Room S2-352
	Monday	June 5	9:00am-10:00am	Research Lecture: TBA	Goff Rooms 309 B&C
	Tues	June 6	4:30pm- 7:00pm	Program BBQ Socializer	Volleyball/Basketball courts (FCR/Rain)
	Wednesday	June 7	9:00am-10:00am	Research Lecture:	Lazare Auditorium S1-607
	Thursday	June 8	4:00pm- 6:00pm	Evening Event: Pranoti Mandrekar, PhD and Brian Lewis, PhD "Navigating Professional Relationships"	Faculty Conference Room S1-342
2					

	Friday	June 9	9:00am-10:00am	Research Lecture:		Amphitheater III S6-102
3	Monday	June 12	9:00am-10:00am	Research Lecture:		Lazare Auditorium S1-607
	Tues	June 13	8:30am-10:00am	Breakfast Club		ASC Café
	Wednesday	June 14	9:00am-10:00am	Research Lecture:		Lazare Auditorium S1-607
	Thursday	June 15	8:30am-10:00am	Breakfast Club		ASC Café
	Friday	June 16	9:00am-10:00am	Research Lecture:		Lazare Auditorium S1-607
4	Monday	June 19		Holiday Juneteenth		
	Tuesday	June 20	9:00am-10:00am	Group Leaders Discussion Meeting		Lazare Auditorium S1-607
	Wednesday	June 21	4:30pm- 6:00pm	Evening Event: Morningside Networking Event Dean Lane and Students		Amphitheater I S2-102
	Thursday	June 22	8:30am-10:00am	Breakfast Club		ASC Café
	Friday	June 23	12:00pm- 1:00pm	Luncheon Lectures: Heleen van't Spijker, PhD "How to Prepare a Professional Poster"		Amphitheater I S2-102
5	Monday	June 26	9:00am-10:00am	Group Discussions		S3-402, S3-436, S4-402, S5-402, S6-402
	Tuesday	June 27	3:00pm- 6:30pm	Purgatory Chasm State Reservation		Sutton, MA
	Thursday	June 29	8:30am-10:00am 3:00pm- 6:30pm	Breakfast Club "Rain Date Purgatory Chasm State Reservation"		ASC Café Sutton, MA
	Friday	June 30	12:00pm- 1:00pm	Luncheon Lectures: Catarina Kiefe, PhD, MD "MD/PhD Program"		Amphitheater I S2-102
6	Monday	July 3	9:00am-10:00am	Group Discussions		S3-402, S3-436, S4-402, S5-402, S6-402
	Tuesday	July 4	All Day⁹	Holiday Independence Day		

	Wednesday	July 5	8:30am-10:00am	Breakfast Club	ASC Café
	Thursday	July 6	8:30am-10:00am	Breakfast Club	ASC Café
	Friday	July 7	8:30am-10:00am 12:00pm- 1:00pm	Breakfast Club Luncheon Lecture:	ASC Café Amphitheater I S2-102
7	Monday	July 10	9:00am-10:00am	Group Discussions	S3-402, S3-436, S4-402, S5-402, S6-402
	Tuesday	July 11	7:30pm- 6:30pm	Field Trip to Newport, RI	Newport, RI
	Wednesday	July 12	8:30am-10:00am	Breakfast Club	ASC Café
	Thursday	July 13	4:30pm- 7:00pm	**Rain Date: Field Trip to Newport, RI**	Newport, RI
	Friday	July 14	12:00pm- 1:00pm	Luncheon Lecture:	Amphitheater I S2-102
8	Monday	July 17	9:00am-10:00am	Group Discussions	S3-402, S3-436, S4-402, S5-402, S6-402
	Friday	July 21	12:00pm- 1:00pm	Luncheon Lecture:	Amphitheater I S2-102
9	Monday	July 24	9:00am-11:00am	Group Discussions	S3-402, S3-436, S4-402, S5-402, S6-402
		July 24-27	8:30am- 9:30am	Monday- Friday Scheduled Poster review meetings with Participants and LPC	
	Thursday	July 27	1:00pm- 5:00pm	Final posters due on USB Drive to LPC for print approval /final abstracts due on same USB drive	S3-104 Office of Outreach Programs
10	Tuesday	August 1	4:00pm	Posters delivered/pick up to UMass Chan	New Medical School Lobby
	Wednesday	August 2	9:00am-12:00pm	Practice presenting poster/ LPC & Group Leaders Program evaluations emailed to participants/due by midnight	New Medical School Lobby

Thursday	August 3	9:00am-10:00am 1:00am- 5:00pm 5:00pm	Group photo shoot – Professional Photographer Poster Presentation – Professional Dress Poster Judging, LPC (Professional Dress REQUIRED) Take down posters	UMass Chan Campus New Medical School Lobby
Friday	August 4	10:00am 11:30pm- 2:00pm	Closing Ceremony (Professional Dress REQUIRED) Keynote: Luncheon Bus Pickup	AS2- 2102 AUD AS1-2130 East/West MPR
Saturday	August 5	9:00am- 1:00pm	Housing Check out	Worcester State University

FCR- Faculty Conference Room ASC-Albert Sherman Center MPR- Multi Purpose Room
NIH- National Institutes of Health LRB- Lazare Research Building AMP- Amphitheater

Please check email DAILY for updates. Schedule is subject to change. Attendance is mandatory to all events.

- 8:30am-10:00am Breakfast Club (by invitation) ASC Café

Program Description

The UMass Chan Medical School's Summer Undergraduate Research Program is a **non-academic credit**, ten-week, highly structured research experience. The program consists of "hands-on" laboratory research with an investigator serving as a mentor, role model and advisor.

The Summer Undergraduate Research Program is funded by the National Institutes of Health (NIH) and UMass Chan Medical School Provost's Office Summer Undergraduate Research Experience (SURE).

Trainees will create career-building connections between researchers, post docs, graduate students, and peers.

This program is a comprehensive, highly structured hands-on research experience. There are 'no normal' weeks in the program. Each week varies. Hours vary depending on the experiments Trainees are working on at the time. Trainees are required to be in the laboratory during the hours requested by the laboratory hosts, which may involve evenings and weekends. There are also *required* social events. Each Trainee's schedule is different.

Summer Research Fellows are **required** to:

- Live in housing provided by the program
- Attend all seminars, lectures, group discussions, luncheon lectures, and socializers
- Prepare an abstract of their work
- Prepare and present scientific research poster using the format provided by the program
- Wear UMASS ID at all times when on campus

Guests, friends, and family must get permission from the Administrative Coordinator or Directors in advance to attend program functions. There is institutional liability attached to guests, friends and family members who are not part of the program.

Program Dress Code

The UMass Chan Medical School maintains a professional environment. Trainees will encounter patients, medical and professional personnel. Please dress accordingly. Open shoes and sandals are **prohibited** in laboratories by OSHA standards. Casual dress is appropriate for labs. Dress jeans are allowed. Business attire is required for the Professional Poster Session and Closing Program.

Travel Guidelines

Airline travel to attend the program will be paid for and scheduled by UMass staff, as well as travel to/from Boston Logan, Worcester Regional, or Providence T.F. Green airports. To make travel arrangements contact Ms. Charles at (508) 856-2444 or by email at linhelle.charles@umassmed.edu. **Trainees will be responsible for the cost of any changes or cancellation to their travel arrangements.** Two pieces of luggage per flight (within weight limits of the airline) will be reimbursed with a receipt.

If a Trainee chooses to make his/her own travel arrangements, the total travel allowance cannot exceed \$500 per Trainee. Program travel expenses are for travel either roundtrip from your college or home address listed on your application. For those driving to Worcester, mileage and toll reimbursement are paid from point of origin and back, one time only. Travel reimbursements require receipts and will be paid after the program ends.

Sunday, May 28, 2023, is the program arrival date with flights scheduled. Trainees should arrive at Worcester State University (WSU) during scheduled check in - 12:00 pm and 5:00 pm. Program staff will be at WSU Residence Hall for the check-in. Trainees arriving after 5:00 pm should contact WSU Campus Police at (508) 929-8044 for residence hall access.

Saturday, August 5, 2023, is the departure date. If an additional night's stay is required for extended research, Ms. Charles must be notified by July 18, 2023.

Health Care and Emergency Contact

Trainees should carry their health insurance card at all times. Trainees requiring non-emergency health care should contact their insurance carrier for a local physician referral.

In case of a medical emergency, call 911 immediately and have someone contact the Administrative Coordinator, Ms. Charles on her cell at (508) 797-7919 as an emergency contact. If possible, go to the UMass Memorial Hospital University Campus Emergency Room.

Guidelines for Disability Documentation

These guidelines are designed to assist in preparing documentation of a disability to help determine the appropriate accommodation. Please forward documentation that meets these guidelines to Katrina Durham prior to arrival.

Documentation must be provided by a clinician qualified to diagnose in the appropriate area of specialization and come from the provider directly to Katrina Durham.

- Documentation must be on letterhead, typed, dated, and have an original signature.
- Documentation is based on a current evaluation (usually within three years) and historical documents.
- Documentation must include:
 1. A description of the functional limitations resulting from the disability.
 2. A description of current treatments and assistive devices and technologies with estimated effectiveness in ameliorating the impact of the disability.
 3. Clear support of the direct link to and need for the requested accommodation(s).

Detailed information is found at; <https://www.umassmed.edu/ada>

UMASS Email and Internet

Trainees will be given a UMass email account and internet access. Trainees will also be part of a Summer Research Trainee list added to the UMass global directory. Trainees are expected to check their UMass emails DAILY for program announcements and updates. Other email addresses will not be used to communicate with trainees during the program.

Packages and Mail

Trainees are responsible for shipping all personal items to and from Worcester. Packages received before May 28, 2023, will be taken to the residence hall on the day of check in. All mail should be addressed to the Trainee as shown below. Otherwise, mail delivery cannot be guaranteed. Please terminate mail to UMASS as of August 4, 2023.

Trainee's name
C/o Ms. Linhelle Charles
UMass Chan Medical School
55 Lake Avenue North, Room S3-104
Worcester, MA 01655-0002

Trainees will be notified by email when a package or mail is received. Packages and mail can be picked up in the office of Outreach Programs S3-104.

Housing Information



Housing Check In

Trainees will be randomly assigned to suite and roommates. Limited single person bedrooms within a suite are available on a first come, first served basis. To **guarantee** a single room, submit a check payable to “UMass Chan Medical School, Office of Outreach Programs” for \$600 for a single person supplement with the required program paperwork. Otherwise, housing is free.

Housing is provided at Worcester State University Residence Hall - Wasylean Hall, 486 Chandler Street, Worcester, MA, 01602. Check in is scheduled for Sunday, May 28, 2023, from 12:00 pm to 5:00 pm. Room assignments will be given at that time. Program staff will be at Wasylean Hall during check in. Trainees arriving after 5:00 pm should contact WSU Campus Police at (508) 929-8911 for residence hall access.

To contact Ms. Charles outside of regular school hours call (508) 797-7919.

WSU Identification card

The Worcester State University One Card is your identification card issued at dorm check in and used to access the residence hall door, fitness center, library, computer lab and used for the laundry machines.

Directions to Worcester State University are available by visiting

<https://www.worcester.edu/about/contact-us/directions-to-campus/>

The residence hall is air-conditioned. Bedrooms are furnished with beds, chairs, desks, built in closets and window shades. Each bedroom has a live cable outlet, and one in the common area. Each floor contains shared study lounges and television lounges.

All suites have a kitchen (refrigerator, stove, and sink), two bathrooms and a furnished common area. Trainees are responsible for preparing their own meals. Kitchen smoke alarms are very sensitive! WSU cafeteria is closed during the summer. **There is no food service/cafeteria available.**

Personal Items to bring

- Alarm clock
- Desk reading lamp
- Clothes hangers
- Towels, face clothes, hand towels
- Bed linens (twin extra-long) including blankets and pillows
- Toiletries: toothbrush, shampoo, soap, shower sandals, etc.
- Cooking utensils to prepare meal: pots, pans, spoons, forks, dishes, bowls etc.
- Optional: radio/stereo, laptop computer, cell phones, small television, small microwave

WSU Maintenance Reporting

For non-emergency situations, you can email ResLife@worchester.edu with your concerns and carbon copy the UMass Chan Administrative Coordinator, Ms. Charles, on all work orders submitted.

Maintenance is on call 24 hours a day including weekends, and holidays. Maintenance should be contacted after 5:00 p.m. weekdays and weekends for emergency situations only. They can be reached for emergencies (power outage, overflowing toilet, etc.) by calling WSU Campus Police at (508) 929-8911.

Facilities

WSU Sheehan Hall Cardio Room hours	Mon-Fri 5:00 pm-10:00 pm
WSU Library hours	Mon-Fri TBA
WSU Computer Lab in Learning Resource Center hours	Mon-Fri TBA

Laundry

Laundry facilities are located on the first floor of Wasylean Hall. The WSU ID/One Cards are used for the laundry machines. The cost is 1.50 per wash and 1.50 per dry. OneCard instructions will be in the packet from WSU. Trainees can add money to the OneCard for laundry through the WSU website below or by using the machine on the ground floor of the Student Center next to the food court.

OneCard Website: <http://www.worcester.edu/onecard/>

Be considerate of others and remove your clothing promptly. WSU is not responsible for articles left unattended or stolen. WSU is not responsible for items stained due to water problems in the residence halls. If Trainees encounter a problem with a washer or dryer, please contact the Office of Residence Life and Housing during regular business hours M-F between 9 am and 5 pm at (508) 929-8074.

Internet

Free wireless internet and computer jacks are available. Access and passwords will be assigned at housing check in.

Housing Security and Guidelines

The focus of WSU Campus Police is the safety and security of the WSU community. Safety is everyone's responsibility and Trainees are encouraged to report any suspicious activity. WSU Campus Police cannot be everywhere at the same time. Security is provided 24 hours a day by a full-time staff of 16 sworn officers and three residence hall lobby security officers. WSU Campus Police enforce the rules and regulations of WSU along with both State and federal laws.

In case of emergency, call WSU Campus Police (508) 929-8911.

WSU Campus Police **require** everyone to carry their WSU ID badge on campus at all times. The card will also give access to the security doors to each suite. This card is not to be used by anyone but the individual to whom it is assigned. WSU has security cameras throughout the residence halls for student safety. **Call Campus Police at (508) 929-8911 to unlock the door if you are locked out of your room. You must have an ID for verification of identity.**

- Campus Police/residence hall lobby security officers can ask for ID and search bags and back packs.
- **No alcohol is allowed on campus.**
- WSU is a smoke free campus.
- WSU Campus Police and Ms. Charles have full access to all residence hall rooms.
- "Spot" visits will be conducted in the residence hall.

Common Areas

Trainees are expected to keep the interior of the suites/rooms clean and sanitary at all times. Trash is to be removed from suites and bedrooms on a regular basis. Each floor of Wasylean Hall contains trash rooms. Trash bags, toilet paper, broom and a vacuum are provided in the supply closet on each floor. Contact Kristen Nelson (508) 929-8124 (Office) should the closet need to be restocked or opened.

Expectations

- Suitemates will determine their “Ten Commandments” of living together. All suitemates are expected to abide by the document.
- Shared kitchens/bathrooms/common sitting areas must be kept clean at all times.
- Dirty dishes should never be left in the sink overnight.
- Refrigerator space is shared with suitemates. Food should not be left in the refrigerator longer than five days.

Guests

- Parents/guardians, friends or other unlisted guests will not be permitted to access the residences halls at any time.
- **NO OVERNIGHT** guests are permitted.

Housing Checkout

Housing checkout is on Saturday, August 5, 2023, between the hours of 10:00 am - 1:00 pm. There will be a formal walk thru with a WSU representative. Make sure to remove food from the refrigerator. All keys should either be returned to the Program Coordinator or WSU representative (Campus Police). Trainees will be charged \$150 for lost or unreturned keys. If an additional night's stay is required, Ms. Charles must be notified by July 17, 2022. Feel free to contact Ms. Charles for further information or clarification at (508) 856-2444.

Social Events

Past Trainees have organized trips to many of the local New England attractions. Visit these websites for more information.

- www.visit-massachusetts.com/state/
- www.tripsavvy.com/new-englands-best-free-attractions-4058547
-

Movie/Potluck Nights in the WSU Seven Hills Lounge

If you are interested in scheduling an event in the WSU Seven Hills Lounge, please send me an email with the date and time and I will see if it can be booked. Seven Hill Lounge is located on the first-floor lounge of the residence hall. It will be up to the Trainees as a group to organize and clean up after events.

Bus Transportation

Trainees will be bused to/from WSU Wasylean Hall to UMass and to/from UMass to WSU. Bus transportation will be provided M-F only. The scheduled bus times are as follows:

- 8:15 am pick up at Wasylean Hall parking lot, arrival at UMass approximately 8:45 am.
- 6:00 pm pick up at UMass in front of the Lazare Research Building.
- If you missed the bus, Trainee is responsible for his/her own transportation.
- **Do Not** take earlier 8am or 5:30 buses provided for other program participants.

Trainees who find it necessary to stay in their assigned labs later than scheduled bus transportation or weekends will have transportation arranged by their lab hosts.

Parking at WSU and UMass

WSU parking tags will be given at no charge to Trainees who have cars at the housing check in. Do not park in restricted spaces (Handicap or Police assigned spaces). Please park in the parking garage closes to Wasylean Hall.

UMass campus parking is in the Plantation Street Parking Garage. There is a onetime fee of \$80 for parking. Shuttle buses run every 7 to 10 minutes from the garage to the Third Road shuttle drop off, weekdays from 5:30 am to 9:00 pm. Trainees with parking tags are allowed to park on campus lots after 5:00 pm M-F and any time on weekends and holidays. Students who choose to drive **MUST** arrive on time.

First Day of the Program

Plan to arrive at the UMass University Campus on Tuesday, May 30, 2023, at 8:45 am. The bus pickup at Wasylean Hall is at 8:15 am. Orientation will be in the Amphitheater III S6-102 located on the sixth and seventh floor of the medical school Building. Continental breakfast and lunch will be provided. Orientation will begin promptly at 9:00 am.

Required Scheduled Events

Attendance at all events listed on the program schedule is mandatory.

- Absence from any scheduled event due to illness should be reported **immediately** by email or phone to the Lab Host and Ms. Charles
- Scheduling conflicts with lab activities must be pre-approved by the Ms. Charles
- Trainees excused early from their lab are still required to be on campus working on their scientific paper or poster in the UMASS Chan library
- Trainees are required to be here for the full day unless they receive written permission and must be pre-approved by Ms. Charles
- **No requests** should be made to the Lab Host to leave early or take time off

Weekend Reporting Guidelines

Trainees leaving the residence hall overnight or for the weekend are strongly encouraged to notify the Administrative Coordinator, Ms. Charles. Send an email with information on departure (date and time) and expected return (date and time).

Incident Reports

Any personal incidents or injuries should be reported immediately to the Administrative Coordinator or Directors. A formal report will be filed and reviewed by the Program Directors.

Poster Session

The Poster Session is for the UMass community to view and is open to the general public on August 3, 2023, in the New Medical School Lobby on the first floor of the Medical School Building. Posters will be judged on August 3, 2023, from 1:00 pm - 5:00 pm. Trainees are required to be present their poster during the entire session. Business attire is required for both the Poster Session and Closing Ceremony/Luncheon.

Closing Ceremony and Luncheon

The Closing Ceremony is scheduled for August 4, 2023, starting at 10:00 am in the Albert Sherman Center Auditorium AS2-2102. The luncheon begins at approximately 11:30 am in the Albert Sherman Center Multi-Purpose Room AS1-2130 (location may change). Invite laboratory co-workers to attend.

Program Evaluations and Surveys

Halfway through the program Lab Hosts will be asked to fill out an evaluation for each Trainee. This information will be shared with the Trainee. A summative/final evaluation of each Trainee will be done at the end of the program by Group Leaders, Lab Hosts, and the Program Staff. All Trainee evaluations will contribute to letters of recommendation.

During the last week of the program Trainees are asked to complete an online anonymous program evaluation. The link will be sent to Trainees. The data gathered from the program evaluation helps to improve the program.

ITEMS PROHIBITED IN RESIDENCE HALLS

- candles, incense, incendiary devices such as fireworks and flammable materials/ liquids
- refrigerators larger than 3.2 cubic feet (Energy Star, no more than 2 per room)
- upholstered furniture
- satellite dish
- electric blankets • space heaters
- heat generating water vaporizers and humidifiers
- cinderblocks
- heating and cooking appliances such as toaster ovens, hotplates, hotpots, heating coil, rice cookers, crock pots, etc.
- mercury thermometers
- dart boards, darts
- shot glasses of any kind
- barbells, dumbbells over 25 pounds
- pets – the only exception are fish in a 10 gallon or less tank
- drums/drum set • air conditioners • halogen lights/lamps/bulbs
- weapons such as firearms/ammunition, bow and arrows, martial art devices, knives, paintball guns/accessories, swords, gun safes, hunting paraphernalia etc.
- fog lamps/machines
- black lights
- large speakers/subwoofers

Violation of this policy will result in judicial action and removal of the item. If you have any questions about prohibited items, please contact the Office of Residence Life and Housing at 508-929-8074.

Worcester State University Area Information *(some of this information may have changed)*

Supermarkets

Big Y Foods (508) 793-9011
100 Mayfield St, Worcester, MA 01602

Price Chopper (508) 798-5178
221 Park Ave, Worcester, MA 01609

Shaw's (508) 755-5808
112 Gold Star Blvd, Worcester, MA 01606

Stop and Shop (508) 853-8791
545 Lincoln St, Worcester, MA 01605

Price Rite (508) 797-6213
542 Southbridge St, Worcester, MA 01610

Pharmacies

CVS (508) 792-3866
283 Park Avenue, Worcester, MA 01609

Rite Aid (508) 754-5348
393 Chandler St, Worcester, MA 01602

Walgreens (508) 767-1732
320 Park Ave, Worcester, MA 01609

Transportation

Commuter Rail (617) 222-3200
Union Station, 2 Washington Square
Worcester, MA 01604
<http://www.mbta.com>

Peter Pan Bus Lines (800) 343-9999
Union Station, 2 Washington Sq. Ste 3
Worcester, MA 01604
<http://peterpanbus.com/>

Red Cab (508) 792-9999
<http://www.worcester-redcab.com>

Worcester City Bus – WRTA (508) 791-WRTA (9784)
Bus stop in front of WSU on Chandler Street
<http://www.therta.com/>

Yellow Cab (508) 754-3211
<http://www.yellowcabworcester.com/>

Restaurants

Websites:	http://www.massmenus.com/Worcester.htm http://tasteworcester.com
Applebee's 632 Park Ave, Worcester, MA 01603	(508) 363-3032
Boynton Family Restaurant 117 Highland St, Worcester, MA 01609	(508) 756-5432
Burger King 711 W. Boylston Street, Worcester, MA 01606	(508) 852-8111
Chop House 111 (Steak) 111 Shrewsbury St, Worcester, MA 01604	(508) 799-4111
Denny's 494 Lincoln St, Worcester, MA 01605	(508) 852-8448
Dino's Restaurant (Italian) 13 Lord St, Worcester, MA 01604	(508) 753-9978
El Basha (Middle Eastern) 424 Belmont St, Worcester, MA 01604 256 Park Ave, Worcester, MA 01609	(508) 797-0884 (508) 795-0222
EVO 234 Chandler St, Worcester, MA 01609	(508) 459-4240
Fatima's African Café 43 West Boylston Street, Worcester, MA 01605	(508) 762-9797
Five Guys 20-7 Boston Turnpike, Shrewsbury, MA 01545	(508) 425-3185
Golden Pizza 210 Chandler St, Worcester, MA 01609	(508) 752-8907
KYOTO Japanese Restaurant 535 Lincoln St, Worcester, MA 01605	(508) 852-5788
Nancy Chang's Restaurant (Asian Cuisine) 327 Chandler St, Worcester, MA 01602	(508) 752-8899
Ninety Nine 11 East Central St, Worcester, MA 01605	(508) 792-9997
Pampas Churrascaria (Brazilian) 14 E Central St, Worcester, MA 01605	(508) 757-1070
Pho Dakao (Vietnamese) 593 Park Avenue, Worcester, MA 01603	(508) 756-7555

Popeye's (508) 762-9210
622 Park Ave, Worcester, MA 01603

Ruby Tuesday (508) 854-9916
537 Lincoln St, Worcester, MA 01605

Sahara (Middle Eastern)
143 Highland St., Worcester, MA 01609 (508) 798-2181

Sakura Tokyo (Japanese) (508) 792-1078
640 Park Ave, Worcester, MA 01603

Sole Proprietor (Seafood) (508) 798-3474
118 Highland St, Worcester, MA 01609

Texas Roadhouse (508) 853-7266
535 Lincoln St, Worcester, MA 01605

Thai Place (508) 425-3595
50 Boston Turnpike, Shrewsbury, MA 01545

UNO Chicago Grill (508) 421-9300
25 Major Taylor Blvd, Worcester, MA 01608

Take Out/Carry Out

Blue Jeans Pizza (508) 753-3777
270 Park Ave, Worcester, MA 01609

Domino's Pizza (508) 754-2236
396 Park Ave, Worcester, MA 01610

King Chef Chinese (508) 767-0209
205 Chandler St, Worcester, MA 01609

Banks

Bank of America (800) 432-1000
6 Park Ave, Worcester, MA 01605 (508) 752-0167

Citizen's Bank (800) 922-9999
50 Cambridge St, Worcester, MA 01603 (508) 757-0023

TD BankNorth (508) 752-2584
295 Park Ave, Worcester, MA 01609

UMass Five College Credit Union (508) 856-4593
UMass Chan Campus, Worcester, MA 01655

Churches

Muslim

Worcester Islamic Center *
248 Mountain St E, (508) 852-6100
Worcester, MA 01606
<https://www.wicmasjid.org/>

Anglican/Episcopal

St. Matthew's Episcopal Church
(Near Holy Cross and entrance to I-290) *
695 Southbridge Street (508) 755-4433
Worcester MA 01610

St. Luke's Episcopal Church
(Walking distance from WSU, straight up May St. to Pleasant St.) *
921 Pleasant Street (508) 756-1990
Worcester, MA 01602
<http://www.stlukesworcester.net/>

Pentecostal Churches

Christian Community Church* (primarily Spanish)
108 Beacon Street (508) 304-6023
Worcester MA 01608
<http://iccworcchurch.org/>

Brazilian Church Assembly God
91 Canterbury St (508) 753-3900
Worcester, MA 01603

Mt. Olive Pentecostal Church ...is a lively southern-style Pentecostal church. It is a healthy church and a ...
60 Highland St. (508) 753-0950
Worcester, MA 01609

Grace Community Church of God In Christ
67 Vernon St (508) 755-8221
Worcester, MA 01610

United Methodist

Wesley United Methodist Church *
114 Main St (508) 799-4191
Worcester, MA 01608

Covenant-St. Andrew's United Methodist Church (predominantly Black) *
24 Hamilton St (508) 755-2321
Worcester, MA 01604

Korean United Methodist Church
114 Main St (508) 799-4488
Worcester, MA 01608

Baptist

First Baptist Church of Worcester *
111 Park Ave (508) 755-6143
Worcester, MA 01609

John Street Baptist Church
(Traditional Black Baptist church) *
Worcester, MA 01606 (508) 753-4991

SDA

Pleasant Street Church of Seventh Day Adventist (predominantly Black)
370 Pleasant St (508) 797-5009
Worcester, MA 01609

Seventh-Day Adventist Church
2 Airport Drive (508) 752-4783
Worcester, MA 01602

Buddhists

Boundless Way Temple *
An Affiliate of Boundless Way Zen
1030 Pleasant Street
Worcester, MA 01602
<https://worcesterzen.org/>

Society of Friends

Worcester Friends Meeting *
901 Pleasant Street (508) 754-3887
Worcester, MA 01602
<http://worcesterfriendsmeeting.org/>

Jewish

Temple Emmanuel (Union for Reform Judaism) *
661 Salisbury Street (508) 755-1257
Worcester, MA 01609
<https://emanuelsinai.org/>

Movie Theatres

Blackstone Valley 14 (on bus route) (508) 865-7184
The Shoppes at Blackstone Valley (800) 315-4000
70 Worcester Providence Turnpike
Millbury, MA 01527

Showcase Cinemas Worcester (on bus route) (800) 315-4000
135 Brooks St, Worcester, MA 01606

West Boylston Cinema (on bus route) (508) 835-8888
101 West Boylston Street, West Boylston, MA 01583

Shopping

Auburn Mall (508) 832-6000
385 Southbridge St, Auburn, MA 01501

Greendale Mall (May Close) (508) 856-9401
7 Neponset St, Worcester, MA 01606

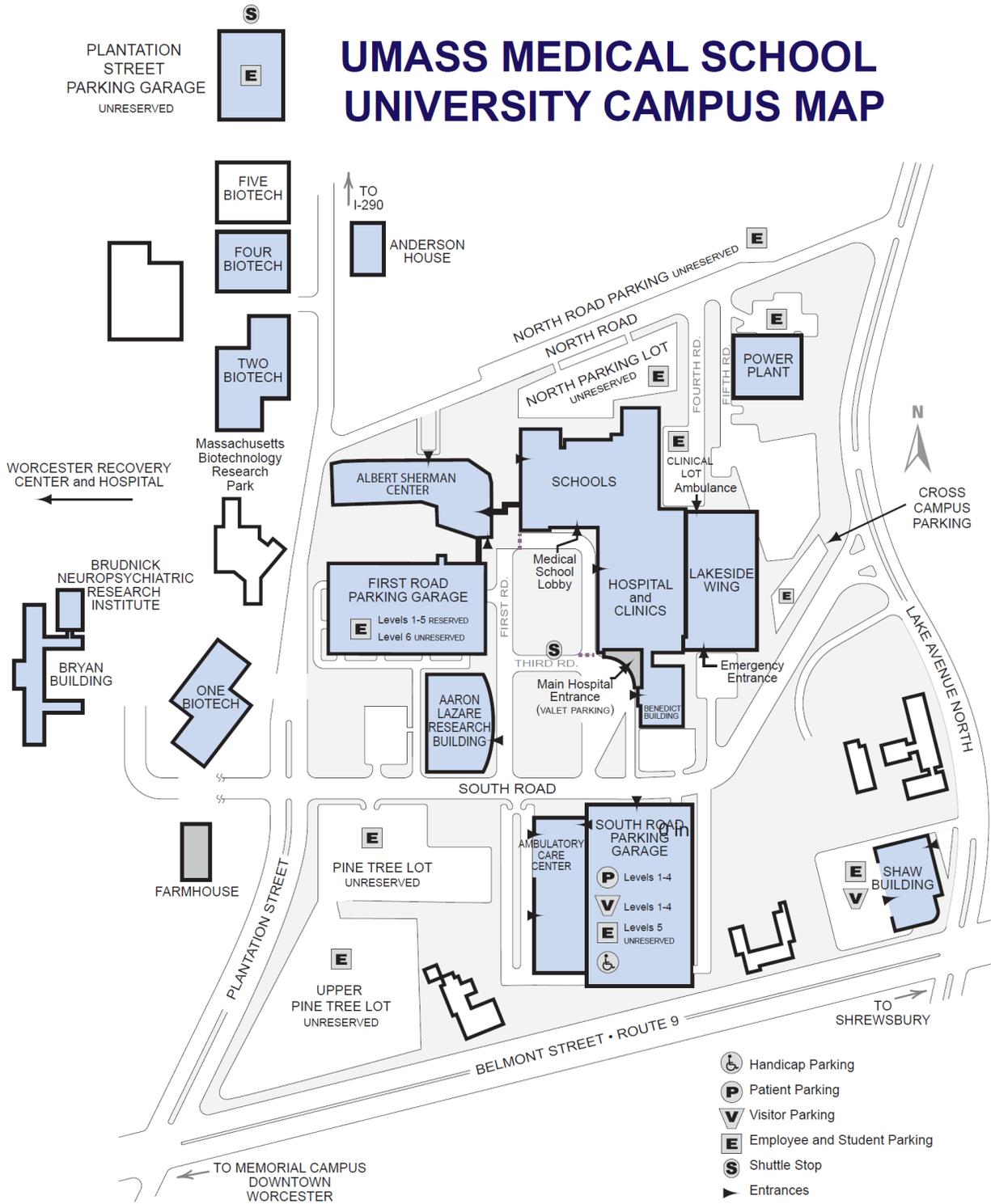
Solomon Pond Mall (508) 303-0204
601 Donald Lynch Blvd, Marlborough, MA 01752

Target (508) 852-3094
529 Lincoln Street, Worcester, MA 01605

The Shoppes at Blackstone Valley (508) 853-4000
70 Worcester Providence Turnpike
Millbury, MA 01527

Super Wal-Mart (on bus route) (774) 314-3157
25 Tobias Boland Way (off Route 146)
Worcester, MA 01606

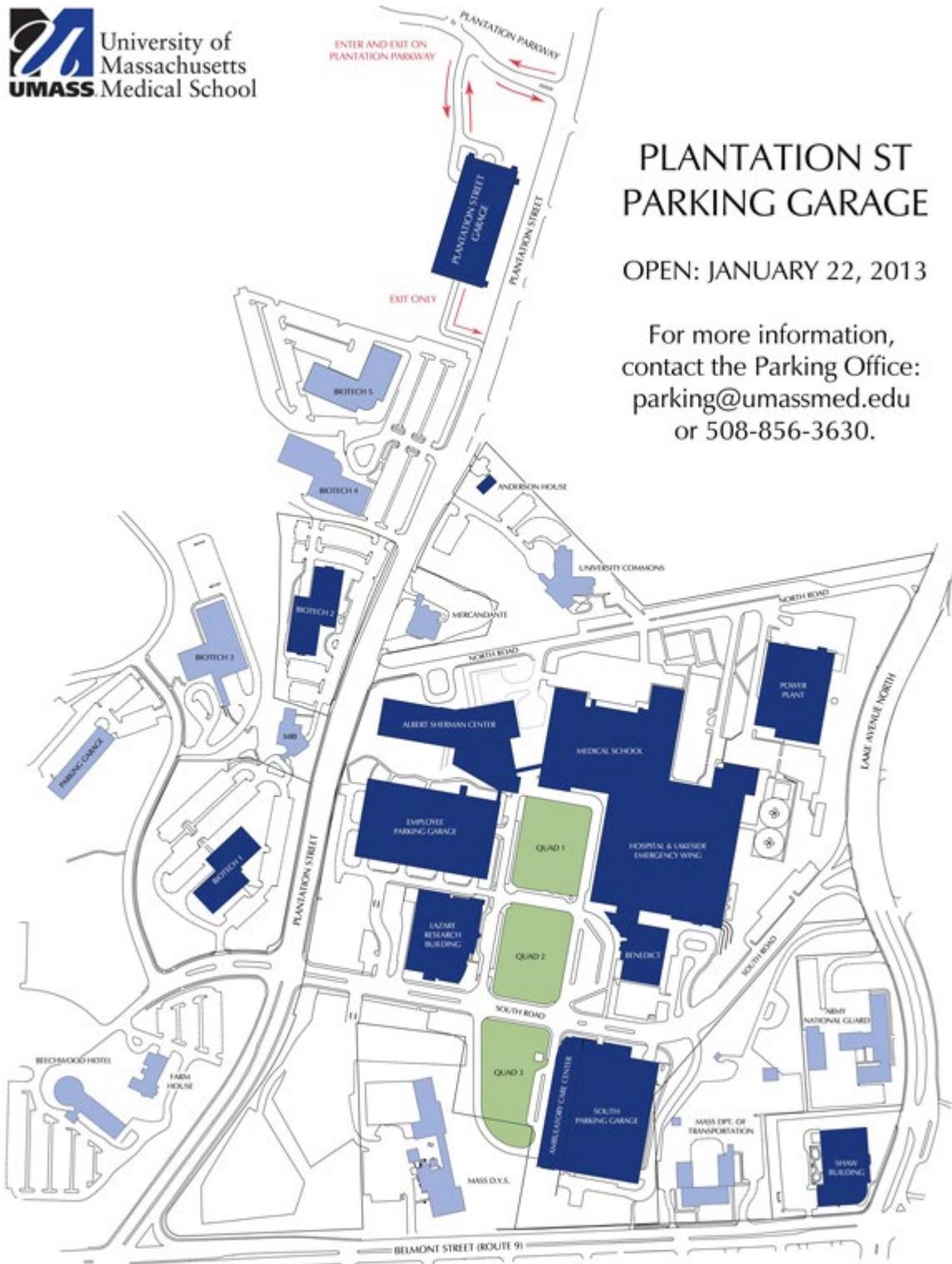
UMASS MEDICAL SCHOOL UNIVERSITY CAMPUS MAP



PLANTATION ST PARKING GARAGE

OPEN: JANUARY 22, 2013

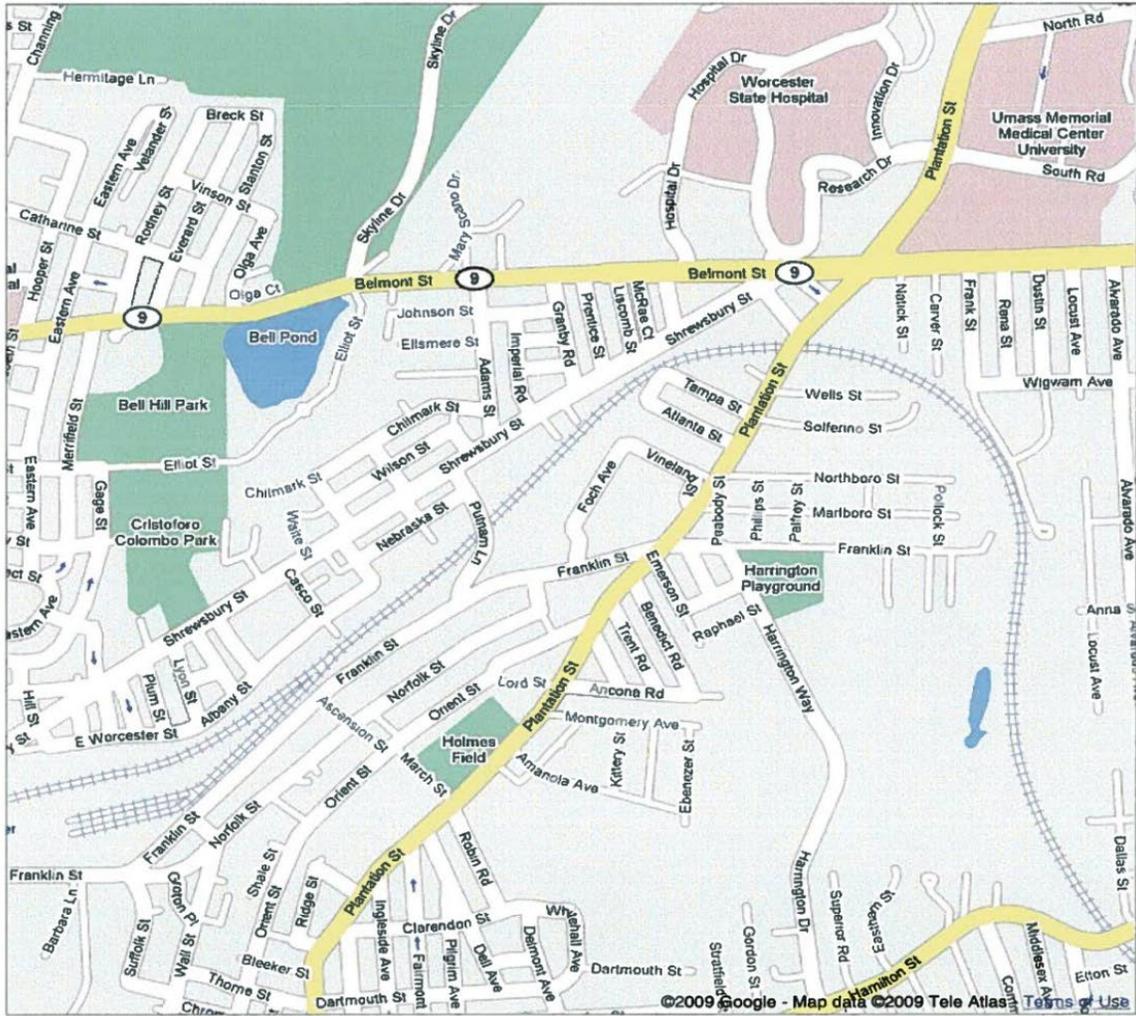
For more information,
contact the Parking Office:
parking@umassmed.edu
or 508-856-3630.





Address Worcester, MA

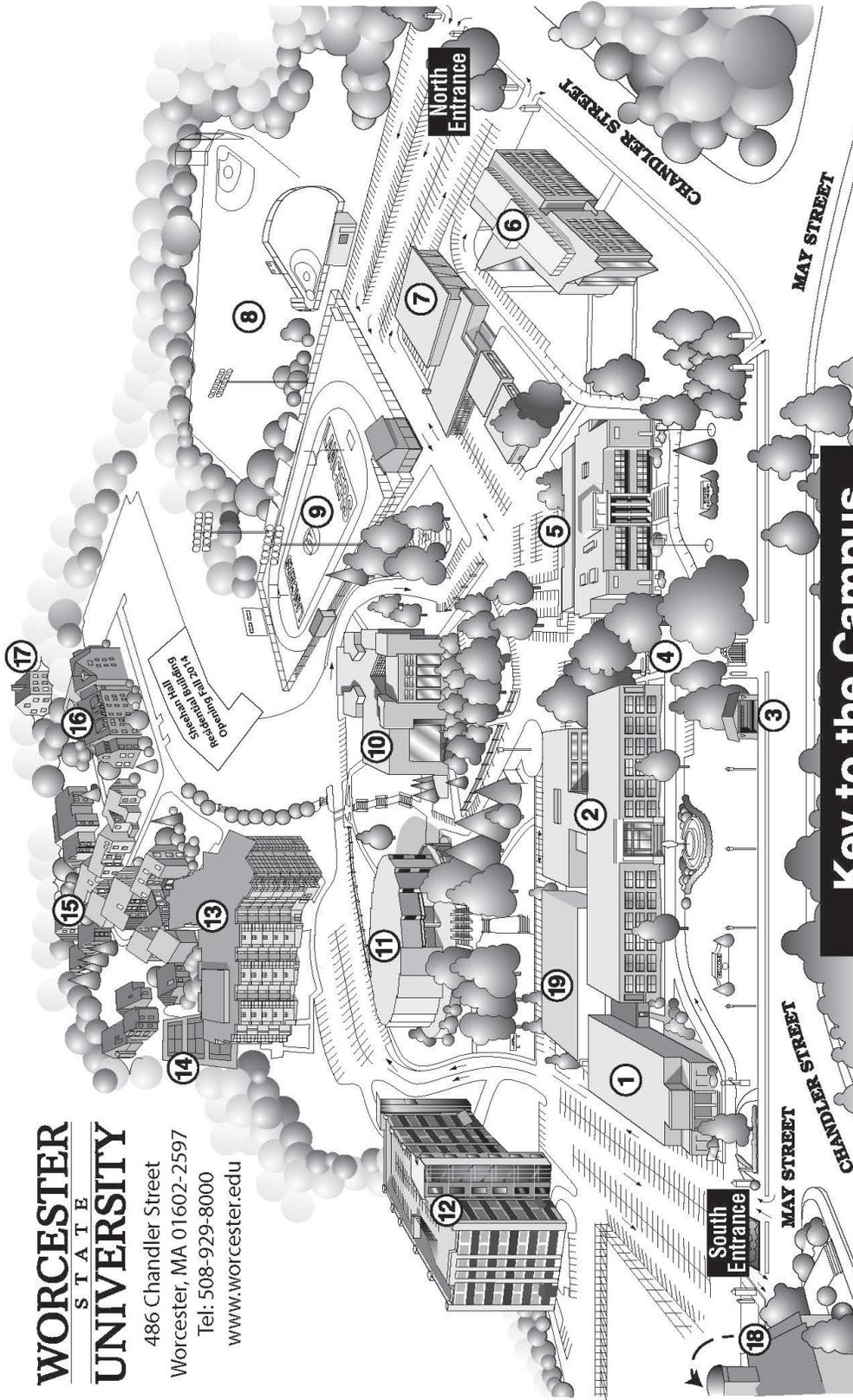
Get Google Maps on your phone
Text the word "GMAPS" to 466453



<http://maps.google.com/maps?hl=en&q=maps+of+worcester,ma&ie=UTF8&split=0&gl=u...> 5/14/2009

WORCESTER STATE UNIVERSITY

486 Chandler Street
Worcester, MA 01602-2597
Tel: 508-929-8000
www.worcester.edu

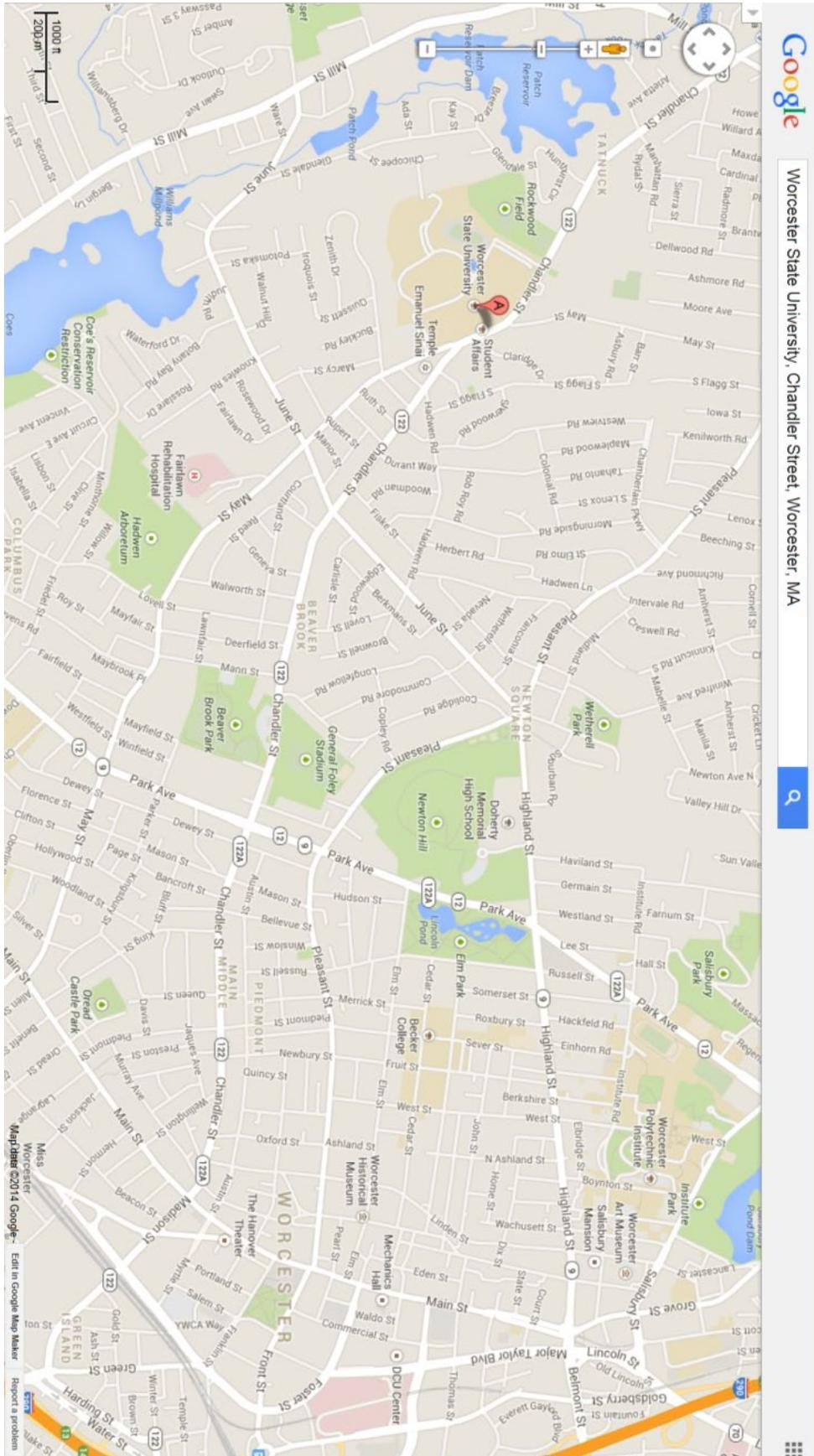


Key to the Campus

(1) Auditorium	(5) Shaughnessy Administration Bldg.	(10) Student Center	(15) Chandler Village
(2) Sullivan Academic Center	(6) Ghosh Sci/Tech Center	(11) Learning Resource Center-Library	(16) Dowden Hall
(3) Bus Shelter	(7) Gymnasium	(12) Parking Garage	(17) Campus Ministry
(4) Consortium/Craft Center & Airport Shuttle	(8) Rockwood Field	(13) Wasylean Hall	(18) May Street Building
	(9) Coughlin Athletic Field	(14) Tennis Courts	(19) Athletic Offices/Health Services

7-2013

WSU Area Map





Life in Worcester

Worcester, New England's second largest city, has all the resources one needs to enjoy a comfortable and interesting life during graduate study.

Among the city's treasures are the Worcester Art Museum, displaying world-class collections spanning 50 centuries and the Ecotarium, a regional resource for learning about the natural world.

For entertainment, Worcester boasts the beautifully restored Hanover Theatre for the Performing Arts with Broadway tours, nationally recognized performers, and family shows gracing the stage; the historic and acoustically superior Mechanics Hall, site of classical music and opera performances; and the DCU Center, one of the country's most successful arenas for top-draw rock concerts, sports and family entertainment events.

For sports enthusiasts, Worcester is the home to minor league baseball, Worcester Tornadoes, and hockey, Worcester Sharks, in addition to the athletic teams of several area colleges.

A wide variety of ethnic restaurants satisfy every taste in Worcester, as do eclectic cafes (Worcester has more diners per capita than any other place in New England) and nightclubs featuring live music. The Shrewsbury Street area and the Canal District are two locations within the city most widely-noted for their assortment of fine dining.

For the outdoor enthusiast, central Massachusetts has much to offer with over 30 state parks, forests, recreation areas, trails, reservoirs and reservations; including Wachusett Mountain State Reservation which offers hiking, biking, skiing and snowboarding for all abilities.

In addition, Worcester's central location within New England makes it ideal for visits to nearby attractions, including Cape Cod, a 90-minute drive southeast; Newport, Rhode Island, a 75-minute drive south; and Boston, a 45-minute drive east. The majestic mountains and pristine lakes of Maine, New Hampshire and Vermont are also nearby and accessible for day trips.

Worcester History & Firsts

- Worcester, Massachusetts was host to the *first* national Women's Rights Convention in 1850.
- The launching of the *first* liquid fuel rocket took place in Worcester, led by "the father of modern rocketry," Robert Goddard (also a graduate of WPI).
- Worcester's Jesse Burkett Little League Allstars became the *first* team from Central Massachusetts to ever qualify for the Little League World Series in August 2002 - capturing the hearts of the city and indeed the entire Commonwealth in the process.
- The *first* radio station to play a Beatles song in the United States was WORC in Worcester.
- The *first* woman to serve in a President's cabinet was Frances Perkins of Worcester, Franklin Delano Roosevelt's Secretary of Labor.
- The *first* Bible and the *first* dictionary printed in the United States were in the 18th century, by Worcester's Isaiah Thomas, who also printed the largest newspaper of the time, the Massachusetts Spy.
- In 1847, the *first* commercial valentine was mass produced in Worcester by Esther Howland.
- The *first* ballpoint pen and the *first* typewriter were invented in Worcester, Massachusetts – a state known for its exceptional writers.
- Worcester is the home of the second oldest *First Night* celebration.

Page

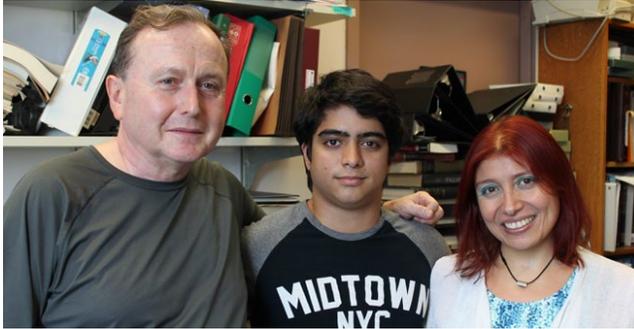
UMASS undergrad research program puts ‘best and brightest’ students in the lab

Program culminates with Aug. 5 awards ceremony

By Sandra Gray

UMass Medical School Communications

August 05, 2016



Sergio Nunez Baez (center) is pictured with principal investigator Jeffrey Nickerson, PhD, and Teresita Padilla-Benavides, PhD.



Solange Fine Amedetowou (left), with Aroian lab faculty member Yan Hu, PhD.



Andreas Bergmann, PhD (right) hosted college student Heather Nelson (center) in his lab under the supervision of postdoctoral associate Alicia Shields, PhD (left).

The 25 college students in the Summer Undergraduate Research Program have spent the past 10 weeks conducting sophisticated research with distinguished principal investigators at UMass Medical School. Whether planning to become physicians, biomedical scientists or something not yet undecided, their immersive and challenging hands-on experiences will help shape their upcoming career decisions.

“If you had given me the option to create my perfect summer experience, it wouldn’t have been as great as this!” said Sergio Nunez Baez, a rising senior at the University of Puerto Rico who has been working in the lab of Jeffrey Nickerson, PhD, professor of cell & developmental biology, and plans to go to medical school after graduation. “There are not many role models for scientists in Puerto Rico, so my time here has completely solidified my belief that I can succeed as a neurosurgeon and scientist.”

The summer program is designed to diversify the pool of biomedical researchers by providing structured, hands-on laboratory research experiences to undergraduate students, especially those from backgrounds under-represented in the field, or who are economically or educationally disadvantaged. Funding is provided by either the National Institutes of Health or the UMass Office of Research.

Nunez Baez has learned that he can function as part of a scientific team; mastered sophisticated three-dimensional microscopy skills; and tested a new experimental approach to understanding mRNA export from a cell’s nucleus to cytoplasm, a process that is regulated by an important signal transduction pathway in cancer.

“It’s hard to know what science is until you actually do it,” said Dr. Nickerson. He said he had a summer job in a biochemistry lab as an undergrad majoring in psychology and it was a life-changing experience. He went on to earn his doctorate in that same lab.

"We pick the best and the brightest students and bring them here in order to recruit them into research," he said.

Solange Fine Amedetowou, also planning to head to medical school when she graduates from the State University of New York at Potsdam, was challenged to advance the knowledge of parasitic intestinal worms in the laboratory of Raffi Aroian, PhD, professor of molecular medicine. Working closely with Yan Hu, PhD, research assistant professor of molecular medicine, in Dr. Aroian's lab, Amedetowou especially appreciated the program's intensity and structure.

"Dr. Aroian likes to challenge students with independent projects," said Dr. Hu. "Our focus is on what they learn, not necessarily what they do."

"I was uncomfortable the first three weeks," Amedetowou admitted, "but now I'm more confident and mature. I learned research requires a lot of patience, and that you have to sit back and think about how what you've learned contributes to the next step."

Minnesotan Heather Nelson, who changed majors and is extending her undergraduate studies at Winona State University in order to incorporate scientific research with teaching, has made inroads in understanding a genetic pathway in fruit flies that could be a target for therapy to suppress abnormal cell growth like that which occurs in human cancers. She has been mentored by Andreas Bergmann, PhD, professor of molecular, cell & cancer biology, and postdoctoral associate Alicia Shields, PhD. "I came to science late and needed an experience like this one," said Nelson, who plans to take a year to conduct further research before continuing to graduate school. "I have been happy to see outstanding collaboration in the lab, and have loved interacting with the scientists."

Nunez Baez, Amedetowou, Nelson and classmates were selected from more than 1,800 applicants from colleges and universities throughout the continental United States, Alaska, Hawaii, Guam, Puerto Rico and the U.S. Virgin Islands.

"What this amazing group of young people has accomplished in 10 short weeks is guaranteed to impress," said Deborah Harmon Hines, PhD, professor of cell & developmental biology, vice provost for school services and principal investigator for the Summer Undergraduate Research Program.

On Thursday, Aug. 4 the undergraduate researchers showcased the fruits of their labors with posters presentations in the old medical school lobby. The program closes on Friday, Aug. 5, with an awards ceremony and keynote speech from UMASS physician-scientist John Sullivan, MD, professor of pediatrics and molecular medicine.

Dr. Sullivan led the UMASS team that helped discover the drug nevirapine, which is widely used today to prevent mother-to-infant transmission of HIV at birth. A pioneering HIV researcher, he is an exemplary role model for today's college students who will become tomorrow's biomedical researchers.
